

ABSTRACT OF THE DISCLOSURE

A method for establishing a secure communication channel for
 information flow between two or more computers communicating via an
 interconnected computer network, and a system for implementing the method, in
 response to receiving a security association data structure from one of the
 5 computers. The received security association data structure is stored in a memory
 region having a specific memory address value, and the specific memory address
 value is assigned as the security parameter index value associated with the
 received inbound security association data structure. Additionally, a method of
 10 processing information received over a previously established secure
 communication channel, and a system for implementing the method, in response
 to receiving a data packet that includes an encrypted data portion, and a header
 portion that includes a security parameter index value. A memory region is
 located using the security parameter index value as an address pointer. The
 15 encrypted data portion of the received data packet is then processed based on a
 security association data structure stored in the located memory region.